



GW3-TRBO®
SysSummary
Software Version 2.17.4
Module Book

GW3-TRBO®

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Refer to the *Troubleshooting & Support* section of the GW3-TRBO Manual Shell (Book 600-2.17.4-AA.1) for complete support and contact information.

Document History

Revision	Description	Author
2.0.5	Revision before release	TDW
2.0.5	Replaced GW3-TRBO trademark with registered trademark.	JAW
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2.16	Revisions Before Release	JPS
2.16	Removed Draw Method menu.	REB
2.16	Standardized “Total” and “Max” statistics names.	DEW

Table of Contents

<i>Trademarks</i>	3
<i>The Genesis Group Trademark Information</i>	3
<i>Copyright</i>	3
<i>Disclaimer</i>	3
<i>License</i>	3
<i>Support</i>	3
DOCUMENT HISTORY	4
TABLE OF CONTENTS	5
ABOUT THIS MANUAL	7
GOALS	7
WHO SHOULD READ THIS MANUAL?	7
HOW THIS MANUAL IS ORGANIZED	7
CHAPTER 1 OVERVIEW	9
TERMS	9
WHAT IS SYSSUMMARY?	9
SELECTING VIEWS	10
<i>System Summary Grid</i>	11
Changing the Selected System	13
Printing the System Summary Grid.....	13
<i>Usage Graph by System Component</i>	14
<i>Usage Graph by Time</i>	15
USING UP-TO-THE-MINUTE GRAPHS	16
<i>Graph Display Options</i>	16
<i>Navigation</i>	18

Goals

This manual describes the role and function of the SysSummary module in the GW3-TRBO solution.

Who Should Read This Manual?



This manual is written for the intended audience of novice to mid-level MOTOTRBO radio system users and novice to mid-level PC users.

How This Manual Is Organized

This manual is organized as follows:

- **Overview:** Describes the SysSummary module and SysSummary graphical user interface (GUI).

This manual contains the following images, used to indicate that a segment of text requires special attention:

-  **Additional Information:** Additional information is used to indicate shortcuts or tips.
-  **Warning:** Warnings are used to indicate possible problem areas, such as a risk of data loss, or incorrect/unexpected functionality.

This chapter describes the SysSummary module and SysSummary GUI.

This chapter contains the following sections:

- **Terms:** Describes the terms that are needed to understand the SysSummary module.
- **What is SysSummary?:** Defines the SysSummary module and SysSummary GUI.
- **Selected Views:** Describes the selected views offered by SysSummary.
- **Using Up-to-the-Minute Graphs:** Describes how to use the up-to-the-minute graphs.

Terms

You will see these terms used in the *Selecting Views* section below:

- ❏ **Slot:** A subdivision of a channel on which radio activities such as voice or data calls can occur. Each physical channel (frequency) on a MOTOTRBO system is divided into two *logical channels* (slots).
- ❏ **Slot Seconds:** The number of seconds a call used on each slot involved in the call. Basically, if the call lasted 5 seconds and required two slots, the call required 10 slot seconds.
- ❏ **Call Seconds:** The number of seconds a call required on a single slot.
- ❏ **Private:** A Push-to-Talk made from a radio to a specific radio.
- ❏ **Group:** A Push-to-Talk made on a talkgroup.

What is SysSummary?

The SysSummary module receives packets from each GW3-TRBO input connection. The information in these packets is used to compile statistics for each connected system, zone, site and channel (frequency). The SysSummary GUI uses these statistics to display up-to-the-minute system usage information through a variety of graphs and charts.

Selecting Views

The **Selected View** feature allows you to toggle between the three reporting views. Each view shows the statistical data in a different way. These views include:

- **System Summary Grid:** Displays up-to-the-minute usage values in a grid format.
- **Usage Graph by System Component*:** Graphical view of usage by system components including:
 - System
 - Zone
 - Site
 - Channel
- **Usage Graph by Time*:** Graphical view of usage by current:
 - Hour
 - Day
 - Month
 - Year

*These graphs will only show data received from the Trbo or Connect module.



The graphs record data only for channels that exist in the Alias database.

These views are described in detail in the sections below.

System Summary Grid

The GW3-TRBO System Summary Grid displays up-to-the-minute system usage values. These values include:

- **Total Packets Received:** All packets received from the GW3-TRBO input connection(s) for the selected system.
- **Corrupt Packets Received:** Total number of corrupt packets received, as reported by the GW3-TRBO input connection(s) for the selected system
- **Percent Corrupt Packets:** Ratio of Corrupt Packets Received to Total Packets Received for the selected system. Try to maintain a corruption level of 0 percent, while less than 1-2 percent is acceptable.
- **Group Voice Call Seconds:** Approximate total of group voice call *slot seconds* for the selected system.
- **Group Data Call Seconds:** Approximate total of group data call *slot seconds* for the selected system.
- **Group Data Revert Call Seconds:** Approximate total of group data revert call *slot seconds* for the selected system.
- **Private Voice Call Seconds:** Approximate total of private voice call *slot seconds* for the selected system.
- **Private Data Call Seconds:** Approximate total of private data call *slot seconds* for the selected system.
- **Private Data Revert Call Seconds:** Approximate total of private data revert call *slot seconds* for the selected system.
- **Telephone Call Seconds:** Approximate total of telephone call *slot seconds* for the selected system.
- **Emergency Call Seconds:** Approximate total of emergency call *slot seconds* for the selected system. Emergency calls are group calls as well as emergency.
- **Total Voice Call Seconds:** Approximate total of group and private voice call *slot seconds* for the selected system.
- **Total Data Call Seconds:** Approximate total of group and private data call *slot seconds* for the selected system.
- **Total Voice Calls:** Total number of voice calls for the selected system.
- **Total Data Calls:** Total number of data calls for the selected system.
- **Average Voice Call Length:** Approximate average voice call length for the selected system, based on **Total Voice Calls** and the total voice *call seconds*. This average is based on *call seconds*, not *slot seconds*.
- **Average Data Call Length:** Approximate average data call length for the selected system, based on **Total Data Calls** and the total data *call seconds*. This average is based on *call seconds*, not *slot seconds*.
- **Busies – Quantity:** Total number of *busy* occurrences received for the selected system.
- **Busies – Seconds:** Approximate number of *busy* seconds for the selected system.
- **Total Affiliations:** Total number of affiliations received for the selected system.

- **Total Deaffiliations:** Total number of deaffiliations received for the selected system.
- **Total Talk Paths Used:** Number of distinct talk paths used for the selected system.
- **Total Groups Used:** Number of distinct talkgroups used for the selected system.
- **Total IDs Used:** Number of distinct radio IDs used for the selected system.

	Last Minute	Last 5 Minutes	Last 15 Minutes	Last Hour	Last 3 Hours	Last 6 Hours	Last 12 Hours	Last 24 Hours
Total Packets Received	78	417	417	417	417	417	417	417
Corrupt Packets Received	2	8	8	8	8	8	8	8
Percent Corrupt Packets	2.56	1.92	1.92	1.92	1.92	1.92	1.92	1.92
Group Voice Call Seconds	55	135	135	135	135	135	135	135
Group Data Call Seconds	0	0	0	0	0	0	0	0
Group Data Revert Call Seconds	0	0	0	0	0	0	0	0
Private Voice Call Seconds	0	0	0	0	0	0	0	0
Private Data Call Seconds	0	2	2	2	2	2	2	2
Private Data Revert Call Seconds	0	0	0	0	0	0	0	0
Telephone Call Seconds	0	0	0	0	0	0	0	0
Emergency Call Seconds	19	19	19	19	19	19	19	19
Total Voice Call Seconds	55	135	135	135	135	135	135	135
Total Data Call Seconds	0	2	2	2	2	2	2	2
Total Voice Calls	12	35	35	35	35	35	35	35
Total Data Calls	0	6	6	6	6	6	6	6
Average Voice Call Length	4.56	3.87	3.87	3.87	3.87	3.87	3.87	3.87
Average Data Call Length	0	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Buses - Quantity	4	7	7	7	7	7	7	7
Buses - Seconds	9	17	17	17	17	17	17	17
Total Affiliations	1	41	41	41	41	41	41	41
Total Deaffiliations	0	0	0	0	0	0	0	0
Total Talk Paths Used	2	2	2	2	2	2	2	2
Total Groups Used	3	8	8	8	8	8	8	8
Total IDs Used	3	8	8	8	8	8	8	8

Figure 1.1 – System Summary Grid


The **System Summary Grid** (Figure 1.1) shows each of the above values within multiple durations. The **Last Minute** duration represents the current minute. This current minute goes by the time on your computer. When your computer’s current minute changes, then the current minute shifts over into the **Last 5 Minutes** category and the **Current Minute** is reset. The **Last Hour** duration includes all minutes within the last hour (most recent 60 minutes), including the current minute. The same is true for the **Last 3 Hours**, **Last 12 Hours**, etc.





The SysSummary module gathers system information even when the SysSummary GUI is closed. You can keep the SysSummary GUI open or just open it when you want to see the grid or graphs.



The System Summary grid is volatile; if the service is restarted all values in the grid will be reset.

 The System Summary grid only maintains activity that occurs in the last 24 hours. Changing the system clock can result in a loss of data.

 Grid data related to event duration (rows that include Length or Seconds in their name) from Connect Plus and Capacity MAX systems is estimated. Packet buffering from these systems prevents the grid's windows of time from being completely accurate. These estimates are close but may be particularly noticeable in the Last Minute and Last 5 Minutes grid columns.

 Radio IDs in the inclusive ranges 16,776,352 to 16,776,415 and 16,776,896 to 16,777,215 will be ignored and not displayed in this module. These IDs are reserved for use in some MOTOTRBO system types.

Changing the Selected System

If the Alias database contains more than one system, then the **Selected System** drop-down list will contain multiple System IDs.

To display the statistics of a different system, choose the system ID within the **Selected System** combo box. Statistics for systems are gathered even when the system is not selected.

Printing the System Summary Grid

To print the System Summary Grid, right-click on the grid and select **Print...** from the context menu. This opens the print dialog, which allows you to choose your printer settings and print the grid.

Usage Graph by System Component

The Usage Graph by System Component shows up-to-the-minute usage statistics for the selected component(s). Components include:

- **All Systems:** This will include all systems, zones, sites and channels
- **All Zones:** This will include all zones, sites and channels under a specific System.
- **All Sites:** This will include all sites and channels under a specific zone
- **All Channels:** This includes all channels under a specific site.
- **Channel Key XXXXXXXXXX:** This will include only the selected channel.

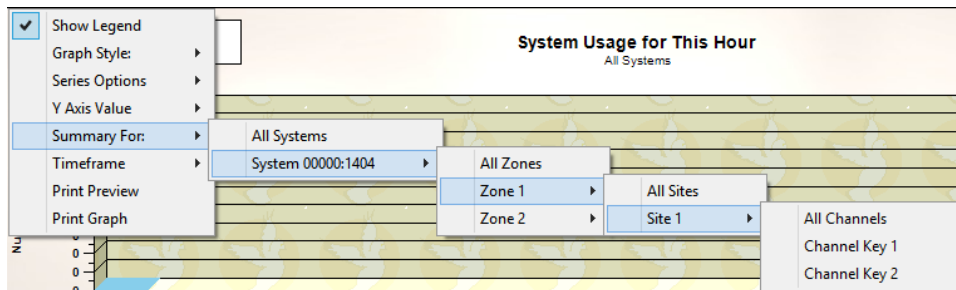


Figure 1.2 – System Component Selection (Summary For:)

The *Using Up-to-the-Minute Graphs* section below describes how to customize the graph to your liking.



Usage Graph by System Component includes information only for channels (frequencies) that have been added to Alias. Missing channels result in incorrect graph values.



The colors shown in the legend and used in the graph series are the same as the color option in Channel. For example, if you update the background color option for *Group Voice* in channel, the color for the *Group Voice* series in the *System Summary* graph will change to reflect your selection.

Usage Graph by Time

The **Usage Graph by Time** shows up-to-the-minute usage for all components based on the selected time interval. Time intervals include:

- **Hour:** Shows statistics by hour.
- **Day:** Shows statistics by day.
- **Month:** Shows statistics by month.
- **Year:** Shows statistics by year.

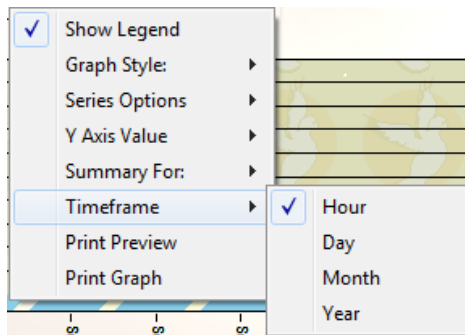


Figure 1.3 – Time Interval Selection (Timeframe)

The *Using Up-to-the-Minute Graphs* section below describes how to customize the graph to your liking.

Using Up-to-the-Minute Graphs

The SysSummary GUI offers two “up-to-the-minute” graphs in its **Selected View** list box. Each graph shows system usage-related statistics, but each one organizes the statistics in a different way. The **Usage Graph by System Component** graph organizes the statistics by component, including system, zone, site and channel. The **Usage Graph by Time** graph organizes the statistics by time interval. These intervals include:

- **Hour:** When your system time hour changes, a new interval will be added.
- **Day:** When your system day changes, a new interval will be added.
- **Month:** When your system month changes, a new interval will be added.
- **Year:** When your system year changes, a new interval will be added.

Graph Display Options

The SysSummary graph offers many customization options.

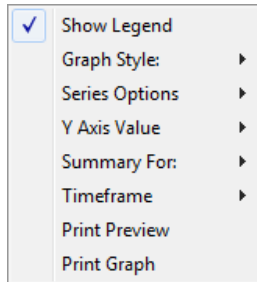


Figure 1.4 – Graph Customization Options

To access the graph options, right-click on the graph. This will show a menu with the following menu options:

- **Show Legend:** Toggle the legend in the upper-left corner of the graph.
- **Graph Style:** Graph style options:
 - **Antenna:** Bar graph shown with narrow lines.
 - **Area 2D:** Each point is connected to the previous point with a line and the area under the line is filled in.
 - **Area 3D:** Same as Area 2D but includes shading.
 - **Bar 2D:** Each value is shown using rectangles.
 - **Bar 3D:** Same as Bar 2D but includes shading.
 - **Line 2D:** Lines connect each point on the graph.
 - **Line 3D:** Same as Line 2D but includes shading.




For Area 2D, Area 3D, Line 2D, and Line 3D, if only one point of data is available, then nothing will be displayed. E.g. only one Channel selected when viewing the *Usage Graph by System Component*.


- **Series Options:**
 - **Stacked:** Each graph shows values for group voice, group data, group data revert, private voice, private data and private data revert categories. If stacked, the categories share the same horizontal space.


- **Show Side by Side:** Each graph shows values for group and private categories. Show Side by Side reserves a horizontal space for each category's value.
- **Point Options:** Options regarding the points shown along the bottom (x-axis) of the graph.
 - **Resource Alias:** Show the alias of the resource.
 - **Resource ID:** Show the ID of the resource.
- **Y Axis Value:**
 - **Number of Seconds:** Values in the graph reflect a sum of call seconds.
 - **Number of Calls:** Values in the graph reflect a call count.
 - **Percent Usage:** Values in the graph reflect percent usage, i.e., number of seconds used on all voice-capable channels divided by the amount of available time on those channels. Control slots do not count toward the available time.
- **Summary For:** Allows you to choose a component such as a system, zone, site or channel. This allows you to drill down and view the statistics for a specific component (see Figure 1.2).
- **Time Frame:** Organizes the statistics into the selected time interval: (See Figure 1.3)
 - **Hour:** In the Usage Graph by Time graph, this will show the last 48 hours.
 - **Day:** In the Usage Graph by Time graph, this will show the last 60 days.
 - **Month:** In the Usage Graph by Time graph, this will show the last 12 months.
 - **Year:** In the Usage Graph by Time graph, this will show the last year.
- **Print Preview:** Allows you to see what the printed graph will look like before you print.
- **Print Graph:** Opens the print dialog. This allows you to choose your printer settings and print the graph.


Navigation


The following buttons allow you to navigate the graph results:


: Navigate to the beginning.

: Navigate 1 page toward the beginning.

: Navigate 1 position toward the beginning.

: Navigate 1 position toward the end.

: Navigate 1 page toward the end.

: Navigate to the end.